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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,527	07/26/2006	Hendrikus Petrus Gijsbertus Van Der Steen	003D.0108.U1(US)	9654
29683	7590	07/24/2007		
HARRINGTON & SMITH, PC 4 RESEARCH DRIVE SHELTON, CT 06484-6212			EXAMINER GIRARDI, VANESSA MARY	
			ART UNIT 2833	PAPER NUMBER
			MAIL DATE 07/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/587,527

Applicant(s)

VAN DER STEEN, HENDRIKUS  
PETRUS GIJSBER

Examiner

Vanessa Girardi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on July 26, 2006 (Initial Application).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-9 is/are rejected.
- 7) ☒ Claim(s) 4 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date July 26, 2006
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 9 is rejected under 35 U.S.C. §102(b) as being anticipated by Morlion et al. (US 5,921,796). Morlion et al. discloses a substrate housing assembly 5 for a substrate 42 adapted for mounting to a backpanel housing assembly 2 to establish an optical interface for optical communication between the substrate 42 and the backpanel 43 characterized in that the substrate housing assembly 5 being adapted to comprise a further housing 12 with a mating side forming a first interface part 4 for the optical interface, the further housing 12 being slidably mountable in a z-direction [COL. 2, LINES 62-65] of the substrate housing assembly 5.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 5-7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Morlion et al. (US 5,921,796) in view of Chen et al. (US 2001/0041030).

With respect to claim 1; Morlion et al. shows an optical connector system [FIG. 7] comprising a backpanel 43 and at least one substrate 42 having at least one substrate housing assembly 5 and a first interface part [FIG. 3] for establishing an optical interface 4 characterized in that the backpanel 43 comprises an integrated second interface part 4 to complete the optical

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interface and the substrate housing assembly **5** is adapted to provide relative movement of the substrate with respect to the optical interface [COL. 2, LINES 62-65].

However Morlion et al. shows that which is being equated with the claimed "backpanel" is in fact a printed circuit board and that which is equated with the claimed "substrate" is a backpanel.

Chen et al. teaches [0003] the connector system "adapter" can be mounted in many different configurations including the claimed backpanel and substrate.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made the printed circuit board and backpanel of Morlion et al. serve in the same capacity as the backpanel and substrate respectively claimed by the Applicant as taught by Chen et al. thus producing an optical connector system which demonstrates flexibility in the mounting arrangement of the respective connectors, backpanel and substrate.

With respect to claim 2; Morlion et al. as understood in light of Chen et al. has been discussed above. However Morlion et al. does not show the housing assembly slidably mounted on the substrate.

Chen et al. shows the substrate housing assembly **28** is slidably mounted [0039] on the substrate **34**.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to mount the housing onto the substrate in a slidable manner as taught by Chen et al. [0006] thus producing a more reliable optical connector system which accommodates / corrects misalignment of connectors during mating.

With respect to claims 3 and 6; Morlion et al. shows the substrate housing assembly 5 is attached to the substrate 42 and comprises a further housing 12 with the first interface part 4 that is slidably mounted in a z-direction of the substrate housing assembly [COL. 2, LINES 62-65]; wherein the further housing 12 is at least partly accommodated within [FIG. 5] the substrate housing assembly 5.

With respect to claim 5; Morlion et al. shows the further housing 12 comprises at least one ferrule assembly 3 for optical fibers 4 at the mating side [FIG. 3] and alignment elements 35, 36 to align the first interface part and the second interface part [COL. 3, LINES 53-56].

With respect to claim 7; Morlion et al. shows the backpanel 43 comprises a backpanel housing assembly 2 and the substrate housing assembly 5 comprise locking elements 27, 26 adapted to lock the housings [COL. 3, LINES 34-36] after completion of the optical interface.

3. Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Morlion et al. (US 5,921,796) and Chen et al. (US 2001/0041030) as applied to claim 1 above, and further in view of Roth et al. (US 7,073,953). Morlion et al. as modified by Chen et al. has been discussed above.

However neither Morlion et al. nor Chen et al. show or teach the optical connector system in conjunction with electrical connectors.

Roth et al. teaches [COLS. 1 & 2, LINES 59-67 & 1-7] that it has become commonplace to incorporate both electrical connectors and fiber optic connectors within backplane assemblies where it is preferred the electrical connection is established after completion of the optical interface [COL. 2, LINES 27-30].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teachings of combining both optical and electrical connectors within the same backplane assembly wherein the connectivity between the electrical connectors is established after completion of the optical interface as taught by Roth et al. to further modify the optical connector system of Morlion et al. / Chen et al. thus producing a backplane assembly that is capable of both optical and electrical transmissions which will serve to meet the needs of high-speed systems having reliable connectivity between respective connectors.

***Allowable Subject Matter***

4. Claims 4 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*The following is a statement of reasons for the indication of allowable subject matter:*

With respect to claims 4 and 10; allowability resides, at least in part, with the prior art not disclosing, showing or teaching the substrate housing assembly comprising a biasing arrangement for the further housing which releases the (BIASING FORCE) on the further housing after completion of the optical interface; in combination with **ALL** the limitations of claims 1, 3 and 9 respectively, thus resulting in a significant structural difference between the claimed subject-matter and the most closely related prior art of record.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanessa Girardi: Telephone number (571) 272-5924.

Monday – Thursday 7 a.m. to 5:30 p.m. (EST)

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VG

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July 17, 2007



**THO D. TA**  
**PRIMARY EXAMINER**